

## REMARKS

The Final Office Action mailed January 6, 2006, has been reviewed and carefully considered. Claims 9, 17, 25 and 26 have been amended. Claims 1-26 are pending in the application with claims 1-8 withdrawn from further consideration.

In paragraph 3 on page 2 of the Office Action, claims 9-26 were rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicant regards as the invention. In particular claims 9, 17, 25 and 26 recited that the first self-pinned layer contacts the hard bias layer even though the drawings show the first self-pinned layer having at least one layer disposed between it and the hard bias layer. Claims 10 and 18 were rejected because it is unclear in what sense a top surface of the first self-pinned layer are "contacting" the hard bias layers when a layer exists therebetween.

Applicants respectfully traverse the rejection, but in the interest of expediting prosecution have amended the claims to overcome the rejections.

In paragraph 6 on page 3 of the Office Action, claims 9, 17, 25 and 26 were rejected under 35 U.S.C. §102(e) as being anticipated by Gill (US PAP No. 2005/0007707 A1).

Applicants respectfully traverse the rejection. Applicants respectfully submit that the cited references, alone or in combination, fail to disclose, teach or suggest Applicants' invention as recited in the amended claims.

Gill shows a first self-pinned layer and a second self-pinned layer disposed over the first self-pinned layer. A free layer is disposed over the second self-pinned layer. The first self-pinned layer extends under hard bias layers. However, Gill fails to disclose, teach or suggest that the hard bias layers abut the free layer. According to the customary meaning of the term "abut" and as used in the specification, the hard bias layers touch at least a portion of the free layer or

share a boundary with the free layer. In contrast, Gill shows a hard bias layer adjacent, but not touching or abutting the free layer. Moreover, the specification specifically describes the abutted-junction bias scheme as including two hard magnets that abut at least the free layer along a longitudinal direction. The hard (bias) magnets include a hard magnetic layer such as CoPtCr and appropriate under-layer and/or overlayer for desirable magnetic and electrical properties. The hard magnets are electrically connected to the free layer allowing sense current ( $I_S$ ) to pass through.

In contrast, Gill shows electrically insulating fill layers 313 311, 313 disposed between the free layer and the hard bias layers. Thus, Gill fails to disclose, teach or suggest an abutted-junction read sensor at all.

Accordingly, Gill fails to disclose, teach or suggest Applicants' invention as recited in independent claims 9, 17, 25 and 26.

Dependent claims 10-16 and 18-24 are also patentable over the cited reference, because they incorporate all of the limitations of the corresponding independent claim 9 and 17. Further dependent claims 10-16 and 18-24 recite additional novel elements and limitations. Applicants reserve the right to argue independently the patentability of these additional novel aspects. Therefore, Applicants respectfully submit that dependent claims 10-16 and 18-24 are patentable over the cited references, and request that the objections to the independent claims be withdrawn.

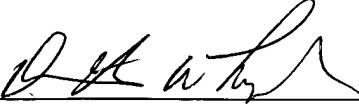
On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested.

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If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Attorney for Applicant, David W. Lynch, at 423-757-0264.

Respectfully submitted,

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